

NON-MAGNETIC SMT CHIP INDUCTORS

SERIES 55XX



SUMIDA Components GmbH is a well-known manufacturer of RF electronic components for different markets, e.g. high reliability and automotive market.

Within our product program, we offer standard platforms as well as custom solutions designed and manufactured with the highest level of quality. This provides the highest degree of ruggedness and endurance for our customers' demanding application requirements.

Our extensive manufacturing and testing capabilities

coupled with our IATF 16949, DIN EN ISO 9001, DIN EN ISO 14001 and DIN EN ISO 51001 certifications, makes SUMIDA Components GmbH the clear choice to satisfy your high requirements.

In addition to our testing capabilities we have also certified testing facilities in Asia and Europe to expand comprehensive laboratory testing services for RF electronic components.

GENERAL CHARACTERISTICS OF NON-MAGNETIC SMT CHIP INDUCTORS

DESCRIPTION

SUMIDA non-magnetic SMT Chip Inductors are wire-wound on our proprietary formulation of ceramic cores giving them the highest Q-factors and resonant frequencies. The terminal metallization is AgPdPt.

Different applications require different component characteristics such as extended temperature or greater levels of shock and vibration durability.

These series of components meet the stringent requirements of these most demanding environments.

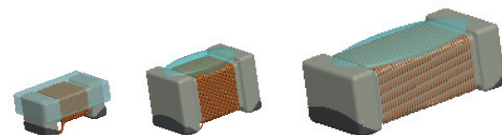
We have also established sophisticated high reliability testing and inspection flows as standards which can be extended by custom specific electrical, mechanical and environmental testing including documentation.

FEATURES

- High reliability Testing & Inspection Flow
- MIL STD 883, MIL STD 981
- MIL-STD-202 Method 213 Condition F ¹⁾ (Mechanical Shock)
- MIL-STD-202 Method 204 Condition H (Vibration) ¹⁾
- Rated Current Burn-In
- Outgassing ASTM E 525 ¹⁾
- Cross-Sectional Microstructure

APPLICATIONS

- Medical
- Critical Electronic Circuits



¹⁾ only for size 0603 and 0805

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ELECTRICAL PARAMETERS

Size	0603 (1608)	0805 (2012)	1206 (3216)
Shape Overview			
Inductance L [nH]	1,5 ... 470	2,7 ... 820	3,3 ... 1200
Tolerance (depends on L-Value) [%]	2/5/10	2/5/10	2/5/10
Minimum Q-factor $Q_{\min}$ []	22 ... 45	20 ... 50	30 ... 45
Self Resonance Frequency $f_{\text{res, min}}$ [MHz]	> 6000 ... 700	> 6000 ... 600	> 5000 ... 430
Max. DC Resistance $R_{\text{DC, max}}$ [mΩ]	25 ... 6200	30 ... 5000	40 ... 3200
Rated Current (ref. to 85 °C) I_{rated} [mA]	1000 ... 80 *	1000 ... 75 *	1000 ... 220 *
Operating Temperature Range T [°C]	-55 ... +125	-55 ... +125	-55 ... +125

* maximum rated current at ambient temperature 85° C

Further L-Values and Tolerances on request

QUALITY MANAGEMENT SYSTEM

Certified QM-System:
IATF 16949
DIN EN ISO 9001

Certified EM-System:
DIN EN ISO 14001
DIN EN ISO 51001

